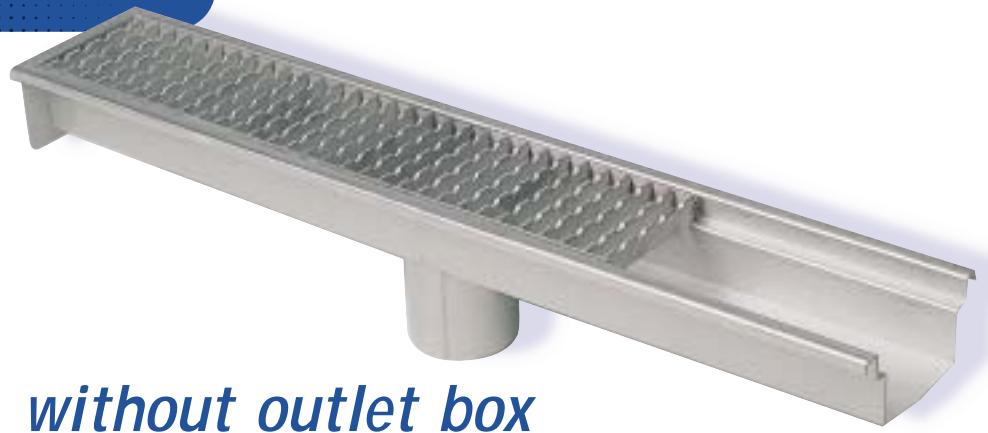


Product code definition

670 X X XXX-XX X X



## Channel *without outlet box* for concrete, in-situ or tiled floor

The channel is made in the following standard widths: 147, 197, 297 and 397 mm internal frame dimensions (B).

A range of gratings is available to suit the varying load and flow requirements - see page 37.

### Application areas:

- For discharge directly into the channel.
- For waste water with solids present.
- Where the channel's water content is required as a buffer.
- Shower areas, kitchens, food & beverage production, chemical plants, abattoirs.

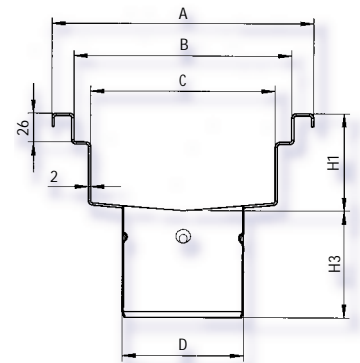
### Channel width and outlet type selection

Select the required width and insert the appropriate letter from the **width type** column into the product code.

Choose the relevant **outlet type** letter and insert into the product code. Note that **width type** D is available with Ø 110 (H) or Ø 160 mm (K) outlet. Ø 160 mm outlet can be combined with lower parts - see page 33.

H1 dimensions are determined by the channel length selected – see following page.

Width type	A	B	C	Outlet type	D	H1	H3
C	187	147	117	H	Ø 110	90/120	98
D	237	197	167	H	Ø 110	90/120	98
				K	Ø 160	90/120	184
E	337	297	267	K	Ø 160	90/120	184
F	437	397	367	K	Ø 160	90/120	184



670 X X XXX-XX X X

An S is added after the product code for orders in AISI 316 L quality.

## Product code definition

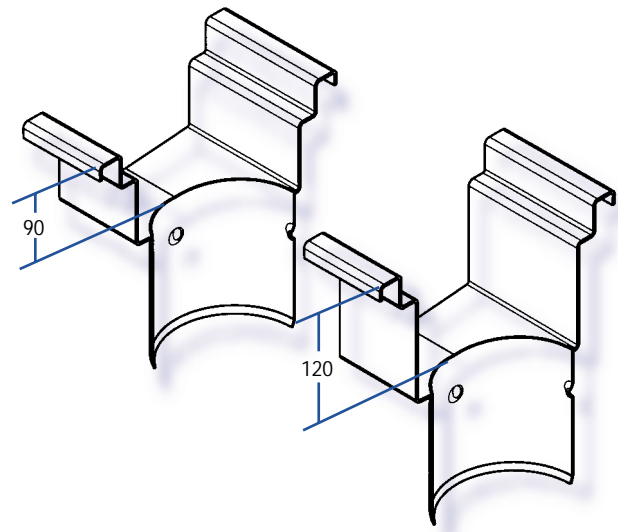
670 X X XXX-XX X X

### Channel length

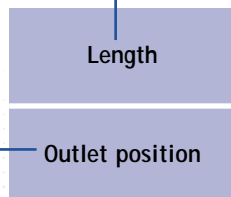
The adjacent table details the range of lengths and outlet positions. Type 670 has two standard outlet depths of 90 mm and 120 mm (see illustration).

The channel length can be up to:

- 6 metres with a depth of 90 mm
- 12 metres with a depth of 120 mm



670 X X XXX-XX X X



Length and outlet position types are selected from the table on pages 8-9

### Options

670 X X XXX-XX X X

These two digits indicate the choice of fixing type, edge infill and protective strip - see page 31-32.

Type no. XXX Channel					
Length type	010	010	015	015	020
Outlet position type	00	05	00	08	00
Nom. length	1 m		1.5 m		
Schematic diagram - outlet position	[Schematic diagrams for outlet positions 00, 05, 08, 00]				
Total length in metres	1.04	1.04			
Content	B = 147		9		

### How to read the table

- Find the required length in the row labelled **Nom. length** (the overall length is found beside the row labelled **Total length**)
- Go to **Schematic diagram** and choose the channel with the required outlet position. (See explanation of schematic diagram on inner side of the rear cover.)
- Read off **length type** and **outlet position type** from the column directly above the selected channel
- Insert the two type numbers selected into the product code (as illustrated above).

Type no. for length

Type no. for outlet position

Nominal channel length

Overall channel length

An S is added after the product code for orders in AISI 316 L quality.

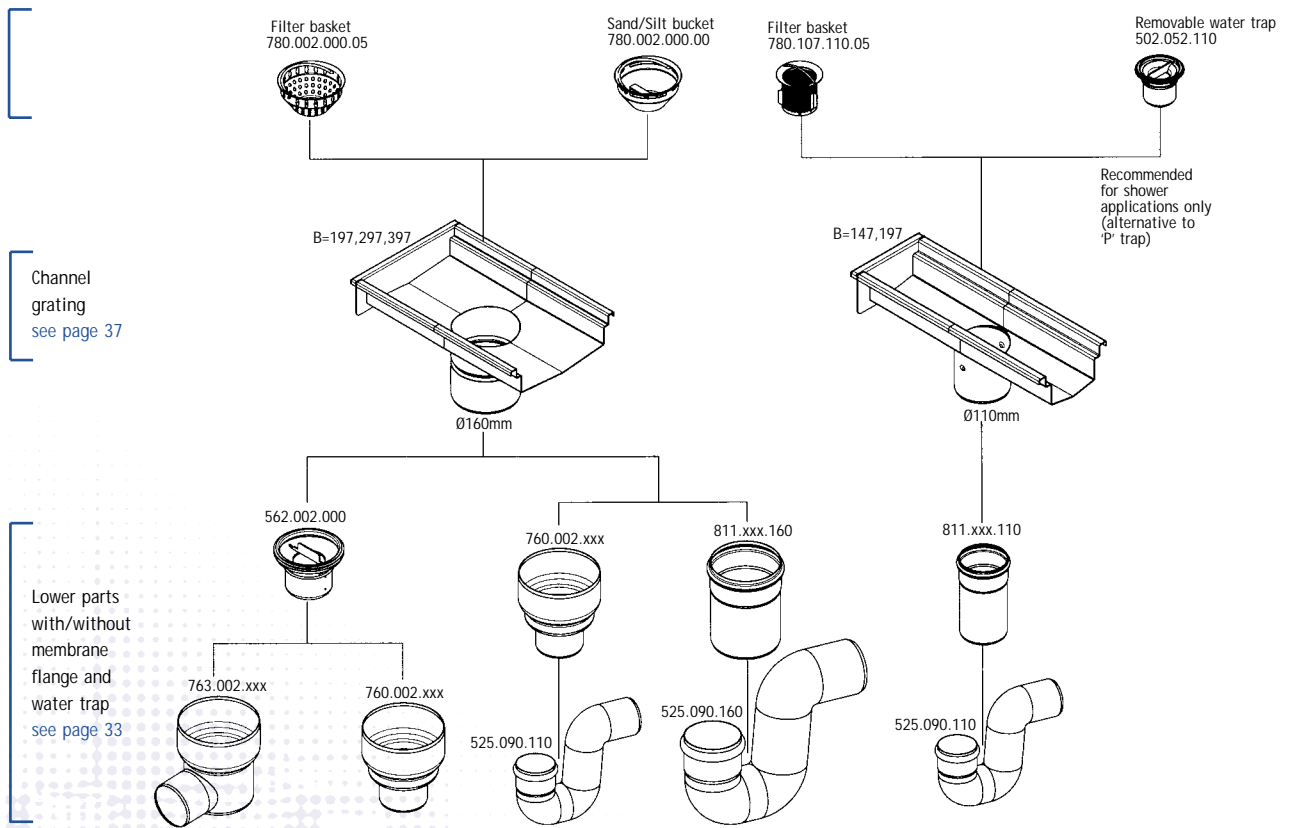
# Type no. 670 Channel without outlet box for concrete or tiled floors (B=147 / B=197 / B=297 / B=397)

Length type	010	010	015	015	020	020	025	025	030	030	030	035	035	040	040	040	040	045	
Outlet position type	00	05	00	08	00	10	00	10	00	10	15	10	15	00	10	15	20	00	
Nom. length	1 m		1,5 m		2 m		2,5 m		3 m			3,5 m		4 m				4,5	
Schematic diagram - outlet position																			
120 mm Maximum channel depth at outlet																			
90 mm Maximum channel depth at outlet																			
Total length in metres	1,04	1,04	1,53	1,54	2,04	2,04	2,54	2,53	3,02	3,04	3,02	3,54	3,53	4,02	4,02	4,03	4,04	4,51	
Water content (litres)	B = 147	9	14	18	23	28	33	37	47	52		106	116	142	156				
	B = 197	13	19	26	33	39	46	52	67	74		106	116	142	156				
	B = 297	20	31	41	51	61	72	82	106	116		106	116	142	156				
	B = 397	27	41	55	68	82	96	116	142	156		106	116	142	156				

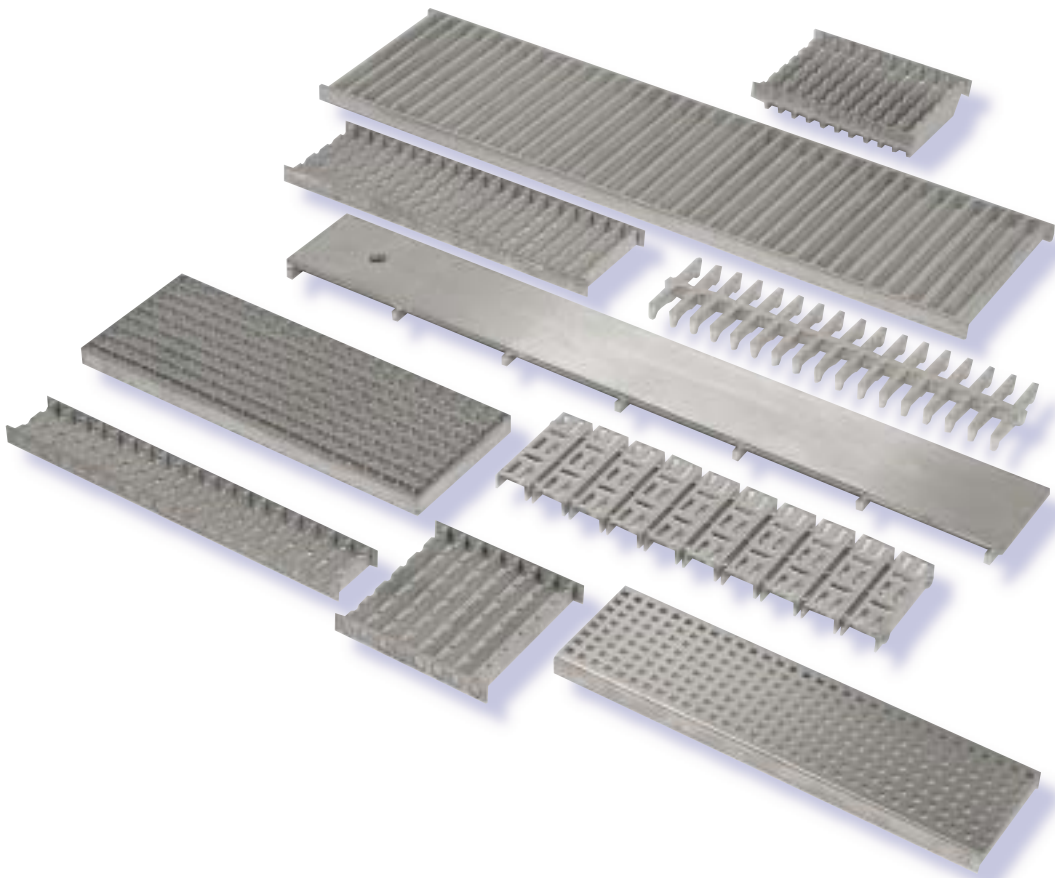
045	045	050	050	050	055	055	060	060	070	080	080	090	090	090	100	100	100	110	110	120
15	20	00	20	25	00	25	00	30	30	30	40	30	40	45	40	45	50	50	55	60
m		5 m			5,5 m		6 m		7 m	8 m		9 m			10 m			11 m		12 m
4,51	4,54	5,02	5,02	5,04	5,52	5,54	6,00	6,00	7,00	8,00	8,00	8,98	9,00	8,98	9,98	9,99	10,00	10,98	11,00	11,96
42	57	47	62	51	66	56	86	96	105	114	124	133	147	159	174	187	232	252	273	293
59	80	65	87	72	93	78	121	135	147	161	174	187	232	252	273	293	339	367	394	423
92	126	102	136	113	146	123	191	212	232	252	273	293	312	339	367	394	423	452	481	510
123	170	137	183	151	197	164	257	284	312	339	367	394	423	452	481	510	539	568	597	626

## Accessories

The diagram below shows accessories and outlet configurations achievable.



## Gratings for channels and outlet boxes



An extensive range of BLÜCHER channel gratings is available to suit varying load, hygiene and flow requirements.

All gratings are 25 mm deep at the bearing point to ensure a precise fit in the channel profile.

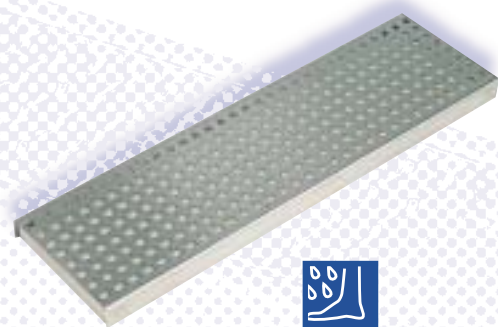
For definition of load classes - see page 40.

## Gratings *with associated loading classes*

### Shower grating

2 mm material thickness with holes 8 x 8 mm

Type number	Width	Length	DIN (loading class)
697.015.075.99	74 mm	998 mm	K 300 kg
697.015.150.99	144 mm	998 mm	K 300 kg



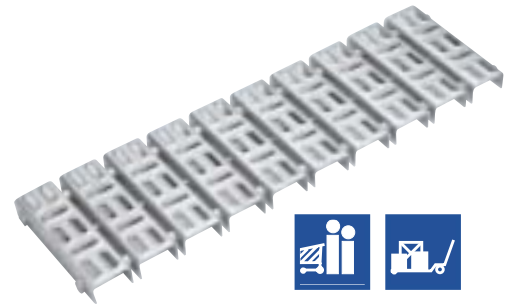
An S is added after the product code for orders in AISI 316 L quality.

o v e r v i e w

## Non-skid grating

2 mm material thickness bent into profile with non-skid holes

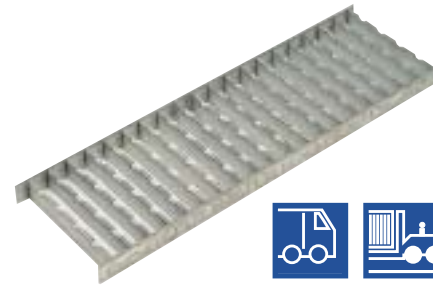
Type number	Width	Length	DIN (loading class)
697.026.075.99	73 mm	998 mm	L 1500 kg
697.026.150.99	143 mm	998 mm	L 1000 kg
697.026.200.20	193x193 mm for outlet box	L	1200 kg



## Ladder grating 25/5

25 x 5 mm spot welded flat steel with distance between bars of 19 mm. Grating reversible with non-skid surface to one side

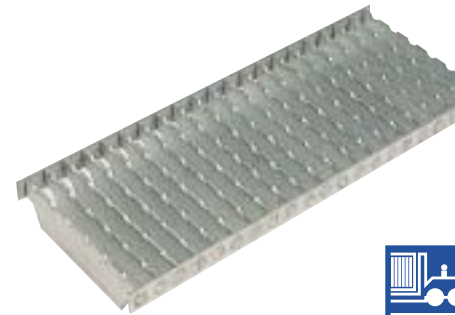
Type number	Width	Length	DIN (loading class)
697.125.075.50	75 mm	499 mm	L 4500 kg
697.125.150.50	145 mm	499 mm	L 5000 kg
697.125.200.50	195 mm	499 mm	L 5000 kg
697.125.200.20	195x195 mm for outlet box	L	7000 kg



## Ladder grating 50/5

50 x 5 mm spot welded flat steel with distance between bars of 19 mm. Grating non-skid

Type number	Width	Length	DIN (loading class)
697.150.150.50	145 mm	499 mm	M 8400 kg
697.150.200.50	195 mm	499 mm	M 8400 kg
697.150.300.50	295 mm	499 mm	M 8400 kg
697.150.400.50	395 mm	499 mm	M 8400 kg
697.150.200.20	195x195 mm for outlet box	M	8400 kg



## Annular grating

10 mm thick plate with welded support bars and 8 mm aperture

Type number	Width	Length	DIN (loading class)
697.200.075.99*	75 mm	998 mm	L 3500 kg
697.200.150.99*	145 mm	998 mm	L 3500 kg
697.200.200.99*	195 mm	998 mm	L 7000 kg
697.200.200.20*	195x195 mm for outlet box	L	7000 kg



An S is added after the product code for orders in AISI 316 L quality.

\* Available only in AISI 304 quality.

\*\* Available only in AISI CF-8 (material no. 1.4308) quality.

## Mesh grating

25 x 2 mm and 10 x 2 mm flat steel with non-skid surface  
Aperture size 22 x 22 mm

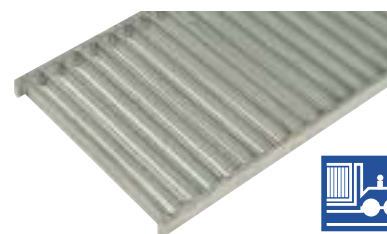
Type number	Width	Length	DIN (loading class)
696.223.074.99	74 mm	998 mm	L 2000 kg
696.223.144.99	144 mm	998 mm	L 1800 kg
696.223.194.99	194 mm	998 mm	L 1350 kg
696.223.294.99	294 mm	998 mm	L 1600 kg
696.223.394.99	394 mm	998 mm	L 1250 kg
696.223.194.20	194x194 mm for outlet box		L 1350 kg



## Plain ladder grating 25/8

Fully welded flat bar with distance between bars of 18 mm

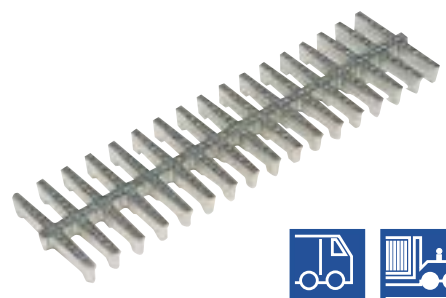
Type number	Width	Length	DIN (loading class)
697.225.300.99*	294 mm	998 mm	M 8400 kg
697.225.400.99*	394 mm	998 mm	M 8400 kg



## Cast grating

Fully cast with non-skid surface

Type number	Width	Length	DIN (loading class)
697.250.075.50**	75 mm	499 mm	M 8400 kg
697.250.150.50**	145 mm	499 mm	L 6000 kg
697.250.200.50**	195 mm	499 mm	M 8400 kg
697.250.200.20**	195x195 mm for outlet box		M 8400 kg



## Wegde grating

5.5x2.8mm wedge shaped bars welded to 12.7x3.3mm support bars at 50mm centres

Type number	Width	Length	DIN (loading class)
697.630.075.99	75 mm	999 mm	- Pedestrian ONLY
697.630.150.99	145 mm	999 mm	- Pedestrian ONLY
697.630.195.99	195 mm	999 mm	- Pedestrian ONLY



## Box grating

25x25x2mm thick box section fully welded.

Type number	Width	Length	DIN (loading class)
697.235.150.99	145 mm	999 mm	- approx 10000 kg
697.235.200.99	195 mm	999 mm	- approx 5000 kg
697.235.300.99	294 mm	999 mm	- approx 2000 kg
697.235.400.99	394 mm	999 mm	- approx 1000 kg



Additional None Slip Tabs can be specified if required.

An S is added after the product code for orders in AISI 316 L quality.

\* Available only in AISI 304 quality.

\*\* Available only in AISI CF-8 (material no. 1.4308) quality.



## Description of load classes:

**Load classes.** – The grating's load class can be specified under various standards and testing methods. The following are relevant to BLÜCHER's specification of load classes:

**DIN 19 599:** Gullies and manhole tops for use in buildings.

The grating is tested with a piston, the size of which depends on the grating width (defined as the largest free opening in the outlet/channel). The free opening is the diameter of the largest circle which can exist between the grating supports.

As the grating is subjected to various piston sizes, it is not always possible to compare the various widths (e.g. a grating with a width of 300 mm can be in a higher load class than a grating with a width of 200 mm).

The maximum permitted deflection similarly depends on the free opening and is set at 2/500 of the area of the free opening to a maximum of 2 mm.

The specified loading in kg for each grating corresponds to the max. loading under the DIN standard.

*The following classifications are designed to give a simplified indication as to the suitability of the gratings in service:*



**Barefoot area** – *e.g. shower areas, changing rooms*



**Pedestrian traffic** – *e.g. kitchens, supermarkets*



**Pallet trucks, trolleys** – *e.g. light industry*



**Delivery vans, lorries** – *e.g. industry, factories*



**Fork-lift trucks** – *e.g. heavy industry.*

### Description of loading classes:

**K(K300)** The grating is loaded with 2/3 of 300 kg (200 kg) five times, with the pressure maintained for 5 min. on the final occasion. The deflection is then measured.

Finally the grating is loaded with 300 kg. There is no deflection standard on this occasion but the grating must not break and should still be removable.

**L(L1500)** The grating is loaded with 2/3 of 1500 kg (1000 kg) five times, with the pressure maintained for 5 min. on the final occasion. The deflection is then measured.

Finally the grating is loaded with 1500 kg. There is no deflection standard on this occasion but the grating must not break and should still be removable.

**M(M12500)** The grating is loaded with 2/3 of 12500 kg (8333 kg) five times, with the pressure maintained for 5 min. on the final occasion. The deflection is then measured.

Finally the grating is loaded with 12500 kg. There is no deflection standard on this occasion but the grating must not break and should still be removable.